



September 20, 2019

Arcelor Mittal USA, Inc.  
250 W US Highway 12  
Burns Harbor, IN 46304-9745

Work Order No.: 1911263

Re: NPDES Parameters

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 9/20/2019 10:25:00AM for the analyses presented in the following report as Work Order 1911263.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at [ron.misiunas@microbac.com](mailto:ron.misiunas@microbac.com).

Sincerely,  
Microbac Laboratories, Inc.

A handwritten signature in black ink that reads "Carey Gadzala". The signature is written in a cursive, flowing style.

Carey Gadzala  
Project Manager

[Microbac Laboratories, Inc.](http://www.microbac.com)

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**WORK ORDER SAMPLE SUMMARY****Date:** *Friday, September 20, 2019*

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**Client:** Arcelor Mittal USA, Inc.  
**Project:** NPDES Parameters  
**Lab Order:** 1911263

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Tag Number</b>	<b>Collection Date</b>	<b>Date Received</b>
1911263-01	001-Composite	001	09/19/2019 10:25	9/20/2019 10:25:00AM
1911263-02	002-Composite	002	09/19/2019 10:25	9/20/2019 10:25:00AM
1911263-03	011-Composite	011	09/19/2019 10:25	9/20/2019 10:25:00AM

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**CASE NARRATIVE**

**Date:** *Friday, September 20, 2019*

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**Client:** Arcelor Mittal USA, Inc.

**Project:** NPDES Parameters

**Lab Order:** 1911263

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Report Revised with correct sample date.

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## Analytical Results

Date: Friday, September 20, 2019

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	191263-01
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	09/19/2019 10:25
<b>Client Sample ID:</b>	001-Composite	<b>Received:</b>	09/20/2019 10:25
<b>Sample Description:</b>	001		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
			Method: <b>SM 4500-CN C/E-1999</b>				Analyst: <b>ABG</b>				
										Prep Date/Time: <b>09/20/2019 11:34</b>	
<b>Total Cyanide</b>											
Cyanide, Total	ejj	A	<b>0.0044</b>	0.0020	0.0050	J	mg/L	1	09/20/2019 15:00		
			Method: <b>SW-846 9014</b>				Analyst: <b>ABG</b>				
										Prep Date/Time: <b>09/20/2019 13:04</b>	
<b>Free Cyanide</b>											
Free Cyanide		A	<b>ND</b>	0.0018	0.0062	U	mg/L	1	09/20/2019 14:35		

## Analytical Results

Date: *Friday, September 20, 2019*

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	191263-02
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	09/19/2019 10:25
<b>Client Sample ID:</b>	002-Composite	<b>Received:</b>	09/20/2019 10:25
<b>Sample Description:</b>	002		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: <b>SM 4500-CN C/E-1999</b>				Analyst: <b>ABG</b>	
Prep Date/Time: <b>09/20/2019 11:34</b>									
<b>Total Cyanide</b>									
Cyanide, Total	ejj	A	<b>ND</b>	0.0020	0.0050	U	mg/L	1	09/20/2019 15:02
				Method: <b>SW-846 9014</b>				Analyst: <b>ABG</b>	
Prep Date/Time: <b>09/20/2019 13:04</b>									
<b>Free Cyanide</b>									
Free Cyanide		A	<b>ND</b>	0.0018	0.0062	U	mg/L	1	09/20/2019 14:36

## Analytical Results

Date: Friday, September 20, 2019

<b>Client:</b>	Arcelor Mittal USA, Inc.	<b>Work Order/ID:</b>	191263-03
<b>Client Project:</b>	NPDES Parameters	<b>Sampled:</b>	09/19/2019 10:25
<b>Client Sample ID:</b>	011-Composite	<b>Received:</b>	09/20/2019 10:25
<b>Sample Description:</b>	011		
<b>Matrix:</b>	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: <b>SM 4500-CN C/E-1999</b>			Analyst: <b>ABG</b>			
			Prep Date/Time: <b>09/20/2019 11:34</b>						
<b>Total Cyanide</b>									
Cyanide, Total	ejj	A	<b>0.0032</b>	0.0020	0.0050	J	mg/L	1	09/20/2019 15:03
			Method: <b>SW-846 9014</b>			Analyst: <b>ABG</b>			
			Prep Date/Time: <b>09/20/2019 13:04</b>						
<b>Free Cyanide</b>									
Free Cyanide		A	<b>ND</b>	0.0018	0.0062	U	mg/L	1	09/20/2019 14:38
			Method: <b>EPA 350.1 Rev 2.0</b>			Analyst: <b>ABG</b>			
			Prep Date/Time: <b>09/20/2019 12:51</b>						
<b>Nitrogen, Ammonia as N</b>									
Nitrogen, Ammonia (As N)	ei	A	<b>0.17</b>	0.054	0.10		mg/L	1	09/20/2019 14:53

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**ANALYTE TYPES: (AT)**

A, B = Target Analyte

I = Internal Standard

M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)



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**QC SAMPLE IDENTIFICATIONS**

BLK = Method Blank

DUP = Method Duplicate

BS = Method Blank Spike

MS = Matrix Spike

ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank

CRL = Client Required Reporting Limit

PDS = Post Digestion Spike

QCS = Quality Control Standard

ICSA = Interference Check Standard "A"

ICSAB = Interference Check Standard "AB"

BSD = Method Blank Spike Duplicate

MSD = Matrix Spike Duplicate

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

OPR = Ongoing Precision and Recovery Standard

SD = Serial Dilution

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**CERTIFICATIONS (Certs)**

*Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.*

d Illinois EPA drinking water, wastewater and solid waste analysis (#200064)

i Kansas Dept Health &amp; Env. NELAP (#E-10397)

j Kentucky Wastewater Laboratory Certification Program (#108202)

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**FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)**

<b>J:</b>	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
<b>MDL:</b>	Minimum Detection Limit
<b>RL:</b>	Reporting Limit
<b>RPD:</b>	Relative Percent Difference
<b>U:</b>	The analyte was analyzed for but was not detected above the reported quantitation limit. The quantitation limit has been adjusted for any dilution or concentration of the sample.

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## Cooler Receipt Log

Cooler ID: Default Cooler

Temp: 5.7°C  
 MICROBAC®

### Comments

No time

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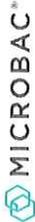
### Cooler Inspection Checklist

Ice Present or not required?	Yes
Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes
Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes
Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes
Sample type identified on COC?	Yes
Correct type of Containers Received	Yes
Correct number of containers listed on COC?	No
Containers Intact?	Yes
COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes
Sample labels match COC (Name, Date & Time?)	No
Samples arrived within hold time?	Yes
Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes
Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes

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CHAIN OF CUSTODY RECORD

Number **152364**

Instructions on back

Lab Report Address

Client Name: *Arcelor mital*

Address:

City, State, Zip:

Contact: *Teri Kirk*

Telephone No.:

Invoice Address

Client Name:

Address:

City, State, Zip:

Contact:

Telephone No.:

Turnaround Time

- Routine (5 to 7 business days)
- RUSH\* (notify lab)

(needed by)

Report Type

- Results Only
- Level 1
- Level 2
- Level 3
- Level 4
- EDD

Compliance Monitoring?  Yes  No

Agency/Program

Sampler Phone No.:

Sampler Signature:

\* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

\*\* Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

REQUESTED ANALYSIS

Lab ID	Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Additional Notes
1911263	001	9/19/19		1		U	CN H43	1911263
	002			1		U		-01
	011			1		U		-02
								-03

Hard Identification

Hazardous  Non-Hazardous  Radioactive

Sample Disposition

Dispose as appropriate  Return  Archive

Relinquished By (signature)

Date/Time

Received By (signature)

Date/Time

Relinquished By (signature)

Date/Time

Received By (signature)

Date/Time

Relinquished By (signature)

Date/Time

Received By (signature)

Date/Time